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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,392	04/06/2005	Philip J Hancy	20030117-US	4873
42716	7590	09/05/2007		
Vern Maine & Associates P. O. BOX 3445 NASHUA, NH 03061			EXAMINER NGUYEN, CHUONG P	
			ART UNIT 3663	PAPER NUMBER
			MAIL DATE 09/05/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/530,392		HANEY, PHILIP J	
	Examiner		Art Unit	
	Chuong Nguyen		3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' 06/18/2007 Amendment, which directly amended claims 14; and traversed the rejection of the claims of the 03/16/2007 Office Action are acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al in view of Nguyen et al (IDS reference – 6,260,759).

Regarding claim 14, Foster et al disclose in Fig 3 and 4 a system for tracking at least one mobile target (i.e. aircraft) in a region along an a priori known a-target path having way-points (i.e. AWP 1-5), comprising: a plurality of sensors (i.e. VORTAC) deployed in the region, wherein the sensors detect the mobile target disposed upon a priori known target path having the waypoints (col 2, line 34+; col 3, line 29 – col 5, line 16); a first processing section (i.e. microprocessor) that receives target data from the sensors and processes target localization information (col 5, line 4+; col 7, line 2+). Foster et al do not explicitly disclose a second processing section wherein the target localization information is linearly constrained and generates a regional measurement consistent with the waypoints disposed upon a priori known target path; and a third processing section that filters the regional measurement and generates a

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filtered target position. Nguyen et al teach in the same field of endeavor such second processing section (i.e. network server) (Fig 2, 4b; 8 “89”; col 6, line 25 – col 8, line 27); and third processing section (i.e. Kalman filter) (col 6, line 13+; col 11, line 53+). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include second processing section and third processing section as taught by Nguyen et al in the system of Foster et al for linearly constraint tracking and for suppressing the error in tracking a target position by filtering out the noise or unwanted signals to refine a position. Also, it has been held that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. KSR, 127 S. Ct. at 1739, 82 USPQ2d at 1395.

Regarding claim 15, Foster et al disclose the target data from the sensors is at least two bearing lines and the target localization information is processed using triangulation from the bearing lines (Fig 3; col 2, line 26+; col 10, line 50+).

Regarding claim 16, Foster et al do not explicitly disclose the filtered target position updates a target track. Nguyen et al teach in the same field of endeavor of the filtered target position updates a target track (col 6, line 13+; col 11, line 53+). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the filtered target position that updates a target track as taught by Nguyen et al in system of Foster et al for providing better accuracy in tracking a target.

Regarding claim 17, Foster et al do not explicitly disclose a tracking filter. Nguyen et al teach in the same field of endeavor a tracking filter (i.e. a Kalman filter) (col 6, line 13+; col 11, line 53+). In addition, it is well known in the art of filtering that the Kalman filter is either a constant gain or a variable gain filter. Thus, it would have been obvious to one of ordinary skill

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in the art at the time the invention was made to include a tracking filter as taught by Nguyen et al in the system of Foster et al for filtering out the noise or unwanted signals from the multiple received signal thereby suppressing the error in tracking a target position.

Regarding claim 19, Foster et al do not explicitly disclose the target path has a threshold bounds and if the target localization information is outside the threshold bounds, the target localization information is not linearly constrained and the target localization information establishes a non-constrained target position. Nguyen et al teach in the same field of endeavor the target path has a threshold bounds and if the target localization information is outside the threshold bounds, the target localization information is not linearly constrained and the target localization information establishes a non-constrained target position (Fig 2; col 8, line 35 – col 9, line 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a threshold bounds and if the target localization information is outside the threshold bounds, the target localization information is not linearly constrained and the target localization information establishes a non-constrained target position as taught by Nguyen et al in the system of Foster et al for distinguishing between linear and non-linear target position during tracking.

4. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al modified by Nguyen et al as applied to claim 14 above, and further in view of Amerga et al (20020115448).

Regarding claim 18, Foster et al modified by Nguyen et al do not explicitly disclose a central processing center for communication. Amerga et al teach in the same field of endeavor a central processing center (i.e. Base Station Controller) (Fig 1 “120”; at least [0035]). It would

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have been obvious to one of ordinary skill in the art at the time the invention was made to include a central processing center as taught by Amerga et al in the system of Foster et al modified by Nguyen et al since it has been held that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. KSR, 127 S. Ct. at 1739, 82 USPQ2d at 1395.

Regarding claim 20, Foster modified by Nguyen et al do not explicitly disclose the repeater. Amerga et al teach in the same field of endeavor the repeaters (Fig 2B-14; at least [0046]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the repeater as taught by Amerga et al in the system of Foster et al modified by Nguyen et al for extending the coverage of a communication network; thus improving the communication in the network.

5. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

6. The statements of intended use or field of use (i.e. claim 14 – detect, that receives, generates, that filters; claim 16 – updates; claim 19 – establishes; claim 20 – receives) and “if” clause are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

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A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Response to Arguments

7. Applicant's arguments with respect to claims 14-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Nguyen whose telephone number is 571-272-3445. The examiner can normally be reached on 8:00 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CN

JACK KEITH
SUPERVISORY PATENT EXAMINER